

Design

Introduction

Imagine this: you have just experienced the greatest eureka moment of your research career and your idea is going to make a huge difference in society. You go to your long time mentor and friend and attempt to pitch your idea. But for some reason, you cannot speak - you cannot communicate at all. No one understands you! How can your idea come to fruition if you cannot convey them? Often times, we researchers are stuck knee deep in our lab and bench work that we sacrifice the development of one of the most important skills to learn – how to communicate.

Wiki

The communication of our ideas and project before the Jamboree is mostly done on our Wikis. Many of the judges, prior to attending a presentation session, will check the team's Wiki to ready themselves for the technical talk and to gain a first look and a basic understanding of the project. Additionally, as it is accessible by all, the Wiki can be used as a platform to introduce projects and synthetic biology to the general public. How the Wiki is designed and how it conveys information is therefore extremely important not only for the iGEM competition, but also for how your project is perceived in society's eye.

The first and most important part of a good Wiki is content. As Mr. Patrick Wu said during a design seminar, "content is king." A Wiki that has good aesthetic is a beautiful, empty shell if it does not provide the information necessary for the iGEM competition. Content ALWAYS trumps design. Some good questions to answer on your Wiki are: what is the problem? Why will your project make a significance in its field? A problem our team ran into while writing our content was communicating in a way that is easily understandable and can be digested by all. We solved this problem by asking a variety of people from differing fields on their opinion about what we had written. While you are designing your Wiki, it is useful to ask an outsider for their perspective. Gaining feedback from many people will help you polish and tweak your content until it can be the best that it can be. Have people from differing backgrounds (i.e, those who are familiar with the project and also those who are not) read your content and make sure what you have written is scientifically correct AND interesting.

While designing a Wiki, keeping the reader (whomever it may be) interested with the content you have written on your site is also very important. Therefore, you should design your

Wiki so that the content can be found in a fun, easy, and intuitive way. According to the recommendations on the iGEM site itself, try and ensure that people visiting your Wiki can retrieve any information they need within three clicks. Our team wanted to take this principle a step further and make our Wiki interactive. We found that many Wikis in the past have had excellent content but the way content was displayed on the site was boring and uncreative. One thing our team always tried to avoid was something called a “text-dump.” We are visual creatures and having to read page upon page of plain text is boring and also very tiring. (Do you really want the judge that is going to score your presentation to be bored and tired after reading your project description?) Instead of having a text-dump, maybe try including pictures and animations! A picture is worth a thousand words but a video is worth a million. Make it fun! iGEM is not supposed to be so cut and dry – we are students, after all, so have fun with it!

There is, however, a fine line between good design and OVER-design. Adding too many animations can overload and bloat your page and make your Wiki seem tacky or overdone. As a reader, you do not want to wait ten seconds for an animation to load just so you can retrieve the information you quickly wanted to retrieve. You want there to be a good balance between aesthetics and usability. After all, the main purpose of your Wiki is to communicate information. Originally, our team had made use of crazy Java and JQuery scripts so that there would be animations on each page. But then we took a step back and looked at our Wiki from an outsider’s perspective and realized that all the flashiness was (and IS) unnecessary to convey the necessary information. Some interactivity and animation can be fun, but be careful: do not forget that having too much of one thing can be unhelpful and take away from your important content. Balance is KEY!



Figure 1: **Terrible web design layout.** Too many colours, too many figures, too many moving GIFs and animations. This website is too busy and difficult to read through.

When designing a layout, learn to balance content and white space. If a website is over crowded with information, the readability of the site is lessened. People who visit your site may get overwhelmed and lost in the material. We recommend using a grid layout that follows a logical order. Do not be afraid of empty space! The margins and white space help to keep your important information organized and easy to read.

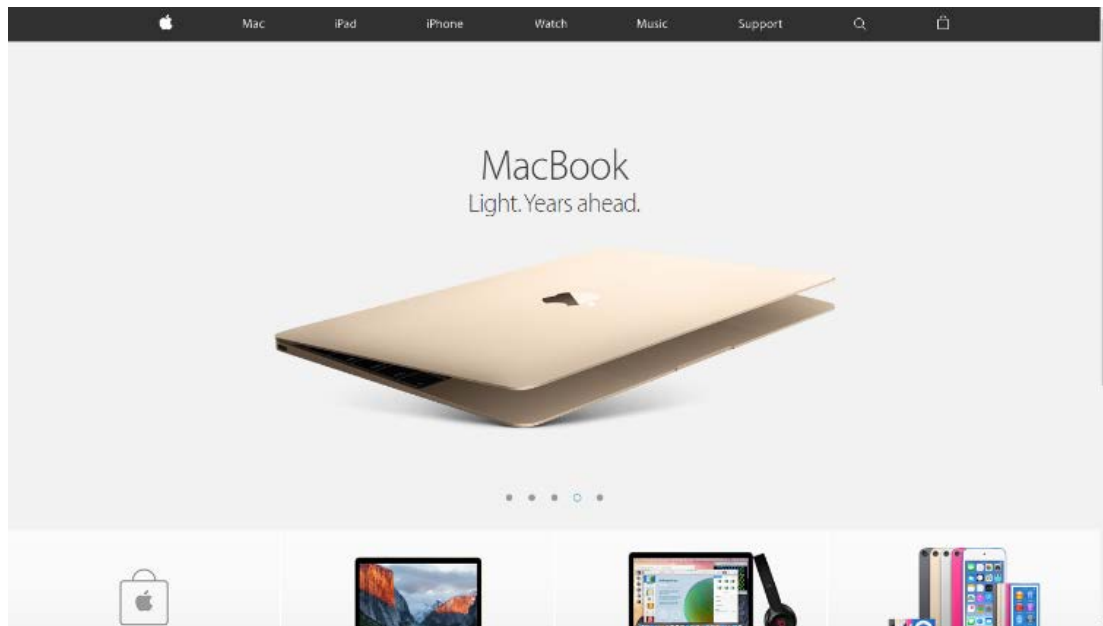


Figure 2 **Good Design Layout** - The Apple website is excellent inspiration for making a Wiki. It is simple but it gets the job done.

In addition to balance, contrast is also important in Wiki design. We don't just mean ensuring you have enough contrast between your font colour and your Wiki background (although that is also very important. No dark blue text on a black background, please). We mean providing contrast to emphasize certain points in your project. For example, contrasting sizes can show that one part of your project is more important than the other. Establishing an informational hierarchy is important when you are designing your site.

"When you do things right, people won't be sure you've done anything at all."

When people visit your Wiki, you want them to read the content you've provided and enjoy the time they spent on it. People can inherently tell if there is something off

**"When you do things right,
people won't be sure you've
done anything at all"**

– God in *Futurama*

about your design. If your wiki delivers every necessary thing and no one can point out a flaw, you've done your job. Designing a functional Wiki was one of the hardest things our team had to tackle. In addition to the complexity of HTML, Java, and CSS (to say the least) we also had to make sure our content was readable and fun to learn. Essentially, your Wiki is an extension of your presentation. Your Wiki is the first impression that you are going to give the judges and anyone else who happens to stumble upon the iGEM site. Your Wiki is important. It is not something you should leave to the last minute. Start on it early and make sure you back up everything you do!